

CLAIMS

1. A process for activating an hydrotreating catalyst comprising a Group
5 VIB metal oxide and a Group VIII metal oxide which process comprises
contacting the catalyst with an acid and an organic additive which has a
boiling point in the range of 80-500°C and a solubility in water of at least
5 grams per liter (20°C, atmospheric pressure), optionally followed by
drying under such conditions that at least 50 wt% of the additive is
10 maintained in the catalyst.
2. The process according to claim 1, wherein the activated hydrotreating
catalyst comprises a crystalline fraction (expressed as weight fraction of
crystalline compounds of Group VIB and Group VIII metals relative to
15 the total weight of the catalyst) below 5 wt%.
3. The process according to claim 1 or 2, wherein the activated
hydrotreating catalyst comprises substantially no crystalline fraction.
- 20 4. The process according to claim 1 to 3, wherein the hydrotreating
catalyst is a used hydrotreating catalyst which has been regenerated.
5. The process according to claim 1 to 3, wherein the hydrotreating
catalyst is a fresh hydrotreating catalyst.
- 25 6. The process according to claim 5, wherein the fresh hydrotreating
catalyst has been calcined.
7. The process according to claim 5 or 6, wherein the fresh hydrotreating
30 catalyst comprises a crystalline fraction of at least 0.5 wt %.

8. The process of claims 1 to 7, wherein the catalyst composition containing the acid is subjected to an aging step while wet.
9. The process according to claim 8, wherein the catalyst composition is aged for a time sufficient to reduce the crystalline fraction below 5 wt%.
10. The process according to claim 1 to 9, wherein the acid concentration is at least 5 wt %, preferably at least 7 wt%, most preferably at least 10 wt % (relative to the total weight of the catalyst).
11. The process according to any one of the preceding claims wherein the acid is an inorganic acid, preferably a phosphorus-containing inorganic acid.
12. The process according to any one of the preceding claims wherein the acid is a carboxylic acid comprising at least one carboxylgroup and 1-20 carbon atoms.
13. The process according to claim 12 wherein the acid is citric acid.
14. The process according to any of the preceding claims wherein the additive is an organic oxygen- or nitrogen- containing compound, with a boiling point in the range of 100-400°C and a solubility in water of at least 5 grams per liter at room temperature (20°C) (atmospheric pressure).
15. The process according to claim 14 wherein the additive is selected from the group of compounds comprising at least two hydroxyl groups and 2-10 carbon atoms per molecule, and the (poly)ethers of these compounds.

16. The hydrotreating catalyst obtainable by the process according to claims 1 to 15
- 5 17. A hydrotreating catalyst comprising a Group VIII metal oxide and a Group VI metal oxide, which catalyst additionally comprises an acid and an organic additive which has a boiling point in the range of 80-500°C and a solubility in water of at least 5 grams per liter (20°C, atmospheric pressure).
- 10 18. The hydrotreating catalyst according to claim 16, wherein the catalyst is a regenerated used catalyst or a calcined fresh catalyst and wherein the catalyst comprises a crystalline fraction below 5 wt% (expressed as weight fraction of crystalline compounds of Group VIB and Group VIII
- 15 metals relative to the total weight of the catalyst).
19. A process for hydrotreating a hydrocarbon feed in which a hydrocarbon feed is contacted under hydrotreating conditions with a catalyst according to claim 10, which optionally has been (pre)sulfided before it
- 20 is contacted with the hydrocarbon feed.